



**In re Application of:**

MANJIT CHOWDHARY

Serial No.: 10/042,409

Filed: January 9, 2002

Title: NEW USES OF FLAKED CATIONIC POTATO STARCH

Group Art Unit: 1623

**Examiner: Ganapathy Krishnan**

Atty Docket: ECO530/4-3US

Confirmation No.: 9031

**AMENDMENT AND RESPONSE TO OFFICE ACTION MAILED MAY 1, 2003**


## MAIL STOP NON-FEE AMENDMENT

Commissioner for Patents  
PO Box 1450  
Alexandria, VA 22313-1450

Sir:

**CERTIFICATE OF MAILING**

I hereby certify that this paper or fee is being deposited with the United States Postal Service with sufficient postage as "FIRST CLASS MAIL" addressed to: Commissioner for Patents, PO Box 1450, Alexandria, VA 22313-1450, this 2nd day of September, 2003.

  
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Randall C. Furlong, Reg. No. 35,144

This paper is submitted in response to the *Office Action* mailed May 1, 2003, for which the response date has been extended one month to September 2, 2003 by the accompanying Petition for Extension of Time. The Director is hereby authorized to charge the required fee of \$110.00 to Vinson & Elkins L.L.P. Deposit Account No. 22-0365/ECO530/4-3US/RCF. No additional fee is believed due. If, however, a fee is required for consideration of this response or entry of the following *Amendment and Response* and remarks, the Director is authorized to charge any required fee to Vinson & Elkins L.L.P.'s Deposit Account No. 22-0365/ECO530/4-3US/RCF.

## IN THE WRITTEN DESCRIPTION

Please amend the written description as follows:

Please amend the paragraph at page 4, lines 20-29 (corresponding to numbered paragraph 14 in Patent Application Publication No. US 2003/0129210 A1), as follows:

Cationic potato starch in flake form also exhibits excellent crosslinking properties, especially when crosslinked with crosslinking agents such as borate ~~Borate~~, zirconium ~~Zirconium~~ or titanium ~~Titanium~~ crosslinker. The covalent cationic structure of this starch allows strong bonds to be formed at the molecular level. It should be noted that cationic potato starch is water-soluble. The superior adhesive properties are evident inasmuch that this starch has been demonstrated to be very sticky when wet, and very non-sticky as soon as it is dry. Re-wetting can reclaim stickiness. This solubility in water facilitates this starch's preparation, delivery and curing. In subjective testing, cationic potato starch in flake form has been further demonstrated not to affect the color or ~~or~~ surface texture of the substrates (such as hair, skin, paper or crops) to which it may be applied.

Please amend the paragraph at page 7, lines 4-10 (corresponding to numbered paragraph 26 in Patent Application Publication No. US 2003/0129210 A1), as follows:

Borate crosslinking agents, for example, when used in personal care products with cationic potato starch in flake form, will enable the crosslinking to be reversible. Thus, the "setting" of the cationic potato starch in the product may be designed to be temporary to some degree. On the other hand, crosslinking agents such as titanium ~~Titanium~~ or zirconium ~~Zirconium~~ crosslinkers will interact with cationic potato starch in flake form to cause the crosslinking to be substantially permanent. Thus, in this case, the "setting" of the cationic potato starch in the product may be designed to be substantially permanent.

Please amend the paragraph at page 8, lines 9-11 (corresponding to numbered paragraph 31 in Patent Application Publication No. US 2003/0129210 A1), as follows:

Approximately 5.0 grams of cationic potato starch in flake form was mixed with approximately 500 ml of de-ionized water in an overhead mixer for 10 minutes. The starch was Empresol ~~Emprase~~ N available from Emsland Starch GmbH.

Please amend the paragraph at page 8, lines 18-20 (corresponding to numbered paragraph 34 in Patent Application Publication No. US 2003/0129210 A1), as follows:

Subjective testing of this solution as hair styling gel indicated it to be [[a]] superior in hold and feel. Used as a conditioner, it was determined subjectively to be advantageous and rinsed off easily.